

AMENDMENT

Please amend the claims as follows. Deleted matter is indicated with strikethroughs and new text is indicated with underlined text. These claims supersede all previous versions. No new matter is added by any of the changes.

CLAIM LISTING:

1. (Currently Amended) A method of automatically detecting fiber cabling errors in an optical network comprising:
 - detecting current fiber connectivity between optical nodes in the network;
 - storing information regarding the current fiber link connectivity;
 - detecting any cabling changes; and
 - determining the impact of the cabling changes on service through the network

including impacts on cross-connects and lightpaths; and

displaying the impact of the cable changes on the service including the impacts on cross-connects and lightpaths.
2. (Original) The method as defined in claim 1 wherein the step of determining impact on services supports the step of directing operator resolution of errors caused by the cabling changes.
3. (Original) The method as defined in claim 2 implemented by an element management system (EMS) within a node.
4. (Original) The method as defined in claim 2 implemented within a network management system (NMS).
5. (Original) The method as defined in claim 2 implemented with an operations support system (OSS).
6. (Original) The method as defined in claim 2 implemented in a combination of EMS,

NMS and OSS.

7. (Original) The method as defined in claim 1 wherein current fiber connectivity and any cabling changes are displayed on a graphical user interface (GUI).

8. (Original) The method as defined in claim 7 wherein the GUI displays a correlation between optical nodes in the network and fiber connectivity.

9. (Original) The method as defined in claim 7 wherein the GUI displays cross-connection impacted by a cabling change.

10. (Original) The method as defined in claim 7 wherein the GUI displays lightpaths impacted by a cabling change.

11. (Original) The method as defined in claim 7 wherein any cabling change must be approved by an operator before initiation of the change.

12-19. (Canceled)

20. (New) The method of claim 1 wherein impact determining step includes determining if lightpaths have been automatically rerouted off affected optical links.

21. (New) The method of claim 1 further comprising detecting changes in lambda-level connectivity between the optical nodes.

22. (New) The method of claim 21 wherein the detected changes in lambda-level connectivity are detected using unique data patterns that are communicated between adjacent ones of the optical nodes.

23. (New) The method of claim 22 wherein the unique data patterns are communicated over each non-cross-connected lambda.